

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Currently Amended) Piston machine comprising a rotatably mounted cylindrical drum (2), disposed in which is a plurality of cylindrical bores (3, 4), which are distributed over the circumference and in which displaceable pistons (5, 6) are disposed, wherein the cylindrical bores (3, 4) at one side have cylindrical openings (7, 8, 35.1, 35.2, ... 35.9), which in accordance with the angle of rotation of the cylindrical drum (2) are temporarily in communication in each case with one of two outlet-side kidney-shaped control ports (9, 10), which are connected in each case to ~~[[a]]~~ an outlet-side working line (27, 28), wherein between the kidney-shaped control ports (9, 10) there is formed, in each case, a switchover region (30, 31) ~~is formed~~ and wherein a first end (32) of a pressure compensation line (33) opens out at least into one switchover region (30, 31),

characterized in

~~[[that]]~~ wherein a second end (34) of the pressure compensation line (33) opens into the outlet-side working line (27), wherein the length (L) of the outlet-side working line (27) between the one said outlet-side kidney-shaped control port (9) and the second end (34) of the pressure compensation line (33), in the case of a hydraulic pump, is so dimensioned that the advancing pressure wave in the working line (27) at the moment at which ~~the second end (34) of the pressure compensation line (33) is at a maximum~~, a pressure maximum reigns at the second end of the pressure compensation line, the first end (32) in the switchover region (30) comes into contact with a further cylindrical opening and a pressure medium flows from the working line over the pressure compensation line into the further cylindrical opening, and/or that the length in the case of a hydraulic motor is so dimensioned that the instant, when the further cylindrical opening (35.1) comes into contact with the opening at the first end (32) of the pressure compensation line (33), a pressure minimum prevails at the second end (34) of the pressure compensation line (33), wherein at the moment at which the first end in the switchover region comes into contact with said further cylindrical opening, the cylindrical opening has no direct contact with the outlet-side kidney-shaped control port.

2. (Currently Amended) Piston machine according to claim 1,

characterized-in

[[that]] wherein the piston machine is a hydraulic pump and that the length (L) between the outlet-side kidney-shaped control port (9) and the second end (34) of the pressure compensation line is approximately $\frac{1}{4} \lambda$, wherein λ signifies the wavelength of the pressure wave and selectively, additionally an integral multiple of the wavelength (λ) of the pressure wave.

3. (Currently Amended) Piston machine according to claim 1,

characterized-in

[[that]] wherein the piston machine is a hydraulic motor and that the length (L) between the outlet-side kidney-shaped control port (9) and the second end (34) of the pressure compensation line is approximately $\frac{3}{4} \lambda$, wherein λ signifies the wavelength of the pressure wave and selectively, additionally an integral multiple of the wavelength (λ) of the pressure wave.

4. (Currently Amended) Piston machine according to claim 1,

characterized-in

[[that]] wherein the piston machine operates as a hydraulic pump and that the length (L) of the outlet-side working line (27) between the outlet-side kidney-shaped control port (9) and the second end (34) of the pressure compensation line (33) is a fraction of the wavelength (λ), wherein the fraction corresponds approximately to the quotient of the angle (γ) between the first end (32) of the pressure compensation line (33) and the cylindrical opening (35.5) of the next cylinder to come into overlap with the first end (32) of the pressure compensation line (33) at the instant that there is an occurrence of a pressure maximum arises in the outlet-side working line (27) and if the intermediate angle $[(6)]$ (δ) between two adjacent cylindrical bores and, selectively, additionally an integral multiple of the wavelength (λ) of the pressure wave.

5. (Currently Amended) Piston machine according to claim 1,

characterized-in

[[that]] wherein the piston machine operates as a hydraulic motor and

[[that]] the length (L) of the outlet-side working line (27) between the outlet-side kidney-shaped control port (9) and the second end (34) of the pressure compensation line (33) is a fraction of the wavelength (λ), wherein the fraction corresponds approximately to the quotient of the angle (δ) between the first end (32) of the pressure compensation line (33) and the cylindrical opening (35.2) of the next cylinder to come into overlap with the first end (32) of the pressure compensation line (33) at the instant [[when]] of occurrence of a pressure minimum [[occurs]] and of the intermediate angle (δ) between two adjacent cylindrical bores and, selectively, additionally an integral multiple of the wavelength (λ) of the pressure wave.

6. (Currently Amended) Piston machine according to any one of claims 1 to 5,

characterized in

[[that]] wherein the length of the pressure compensation line (33) is an integral multiple of the wavelength (λ) of the pressure wave.

7. (Currently Amended) Piston machine according to any one of claims 1 to 5,

characterized in

[[that]] wherein the phase displacement caused by the length of the pressure compensation line (33) at the first end (32) is taken into account by means of a correction-of the length (L) between the outlet-side kidney-shaped control port (9) and the second end (34) of the pressure compensation line (33).

8. (Currently Amended) Piston machine according to claim 1,

characterized in

[[that]] wherein a pressure accumulator element (38) is connected to the pressure compensation line (33).

9. (Currently Amended) Piston machine according to claim 1,

characterized in

[[that]] wherein a throttling point is formed at the second end (34) of the pressure compensation line (33).